



Research Paper

# A Study on the Influence of Behavioral Factors on Women Investors' Decision-Making Regarding the Commodity Market

Ms.E.Nirmala

Part - Time Research Scholar Department of Business Administration  
Annamalai University, Chidambaram  
Assistant professor Agurchand Manmull Jain college Meenambakkam, Chennai

Dr.S. Arulkumar

Associate Professor Department of Business Administration Annamalai University, Chidmbaram

---

## ABSTRACT

An exhaustive literature search confirms that psychological and sociological variables affect women investors' choices. This study groups behavior into illusion, regret, reluctance, belief, self-reliance, risk aversion, rational choice, and constructive. Technical analysis, fundamental analysis, and market psychology are the three components of decision-making. They randomly selected 151 women investors in the commodities market to participate in the research. The findings strongly connect technical analysis, belief, and rational choice. Self-reliance and the psychology of the market are closely related. The study shows that women investors are risk-averse and prefer to look at historical data. As a result of their extensive background and training in investment activities, they can monitor the fluctuating commodity market prices and make informed decisions.

**Keywords:** Behavioral finance, Commodity market, Behavioral factors, Decision making

Received 01 Dec., 2024; Revised 08 Dec., 2024; Accepted 10 Dec., 2024 © The author(s) 2024.

Published with open access at [www.questjournas.org](http://www.questjournas.org)

## I. INTRODUCTION

Two-thirds of India's billion-strong population relies on farm produce to make a living. Astute investors, arbitrageurs, and speculators might benefit significantly from developing commodities into their asset class. Any nation's financial markets would be incomplete without the commodity market. You can buy and sell anything here, from rare metals to industrial metals to soft commodities like palm oil and coffee. It is crucial to building up a strong, dynamic, and liquid commodities market. Women investors would benefit from this by hedging commodity risk, taking speculative positions in commodities, and taking advantage of arbitrage opportunities.

Regarding the basic economic concepts of supply and demand, commodities are straightforward. Before jumping into commodity futures trading, retail investors should weigh the potential rewards against the losses. Historically, the prices of commodity futures have been less volatile than those of stocks and bonds. This makes them a helpful tool for diversification.

Studies in this area of finance have real-world implications. Financial planners would benefit from a deeper understanding of behavioural processes and results since it would help them better advise their customers on the best asset allocation strategies based on their knowledge of how their clients typically react to market fluctuations. Companies' future policies and plans may be influenced by determining the most influential elements of women's behavior. It makes it easier for the government to enact the laws and establish the processes vital to gratifying women investors' needs and boosting market efficiency. By shedding light on women's investor behavior—including what motivates them to take a risk or avoid it, how they make money or lose a lot of money as a result of their choices, and so on—this study may help guide portfolio allocation decisions for investment managers. On top of that, understanding how people's minds work when they act in financial markets helps make macroeconomic policies and create new financial institutions.

## **1.1. OVERVIEW OF THE INDIA COMMODITY MARKET**

The term "commodity market" refers to a marketplace where raw materials rather than finished goods are exchanged. Hard commodities are metals and fossil fuels, whereas soft commodities are wheat, coffee, chocolate, and sugar. Gold, rubber, and oil are just a few of the many "hard commodities" extracted from the ground. Individual investors can access about 50 major commodity markets worldwide, with financial transactions already outnumbering those involving product delivery. Spot prices, forwards, futures, and options on futures are all examples of derivatives that may trade in commodity markets. Farmers have used a simple derivative trading strategy on the commodities market for hundreds of years to protect against price changes.

The Ministry of Consumer Affairs and Public Distribution formed the Forwards Markets Commission (FMC) in 1953 in response to the passage of the Forward Contracts (Regulation) Act in 1952. Eventually, other exchanges are established in the nation to facilitate trading of more commodities. As reported by FMC, the commodity markets in 2013–14 had a volume of 8832.76 lakh tonnes and a value of Rs10,144,793.98 crore. Section 15 of the Forward Commission Regulation Act of 1952 (Annexure I) governs roughly 113 commodities, 6 national exchanges, and 11 commodity-specific regional exchanges (Annexure II). The commodities market has exploded in size since the advent of futures trading. Look at the graphic above to see how the year's essential commodities fared on the market. Gold and silver are both components of bullion. Aluminium, copper, lead, nickel, steel, zinc, and iron are some metals that aren't considered bullion. Products from the agricultural industry include channa/gram, wheat/maize, soy oil, menthe oil, guar seed, guar gum, potato, chillies, jeera, cardamom, pepper, rubber, and more. There are two commodity markets: OTC (over-the-counter) and exchange (based). There is the spot market and the derivatives market, much like stocks. Spot markets are de facto OTC exchanges, with only those directly connected to the commodity (e.g., farmers, processors, wholesalers, etc.) able to participate. Exchange-based marketplaces with standardized contracts, settlements, etc., are where derivatives trading occurs.

The exchanges in India give the whole country a way to trade that is screen-based, unknown, and driven by orders. These markets are controlled by the Forward Markets Commission (FMC). Because of this, six commodities exchanges have been given the green light to open for business. The National Multi Commodity Exchanges in India include the Multi Commodity Exchange (MCX) in Mumbai, the National Commodity and Derivatives Exchange Ltd (NCDEX) in Mumbai, the National Multi Commodity Exchange (NMCE) in Ahmadabad, the Indian Commodity Exchange Ltd (ICEX) in Mumbai, the ACE Derivatives and Commodity Exchange (ACED) in Mumbai and the Universal Commodity Exchange Ltd (UCX) in Navi Mumbai. The New York Mercantile Exchange (NYMEX), the London Metal Exchange (LME), and the Chicago Board of Trade are among the most important trading venues in the world (CBOT).

## **II. REVIEW OF LITERATURE**

Kahneman, A. T. (1974). Behavioural finance stresses representativeness, availability, and adjustability, and anchoring biases are used to evaluate the probability and anticipate values. Overconfidence in investing behavior and judgments is compared with the optimum investment solution, a risk-averse and risk-loving investment decision. Overconfidence, loss aversion, representativeness, and price anchoring are identified. According to the data, representativeness and price anchoring are key decision-making elements; Malaysian women and investors look overconfident Carmen Lee, R. K. (2008). It examines optimism, overconfidence, loss aversion, the illusion of control and confirmation biases, sunk costs, and familiarity. This study uses prospect theory, reference point adaptation, and cognitive-experiential self-theory to explain why women investors give up and create a dynamic model of how women invest.

R. K., Carmen Lee (2008). Overconfidence may affect a company's internal financial structure and merger-and-acquisition activities; The report (2009) examines investor behavior at the Ho Chi Minh Stock Exchange. Investment success is affected by heuristics, prospects, herds, and the market. The study evaluates investors based on their investment return rate and satisfaction. (2011) This report tries to identify retail investors' attitudes. According to retail investors, the five most important criteria were risk tolerance, the health of the Indian economy, media concentration on the stock market, political stability, and government business policies. The four least essential things in stock investing are hearing about successful investors, wanting to get rich quickly, knowing how to use the Internet, and cutting costs at a company.

Kumar (2012). Individual investor irrationality and contextual circumstances Prudence and precautiousness, conservatism, underconfidence, informational asymmetry, and financial addiction drive Indian investor behavior. Chin The research examines how investor psychology impacts decisions. Four psychological biases are identified: belief, self-confidence, regret, and the snake-bite effect. Investors base choices on beliefs. (Schubler, 2012) examines how experience, education, and money impact behavior. The research indicates that German investors make systematic errors and follow the self-attribution bias and endowment effect. Representativeness and herd behavior determine investor behavior.

Quershi (2012) The research examines the impact of heuristics, risk aversion, financial instruments, and corporate governance on Pakistani equity fund managers' decision-making. The study found that heuristics, financial tools, risk aversion, corporate governance, and investment decisions were all linked well.

The research tries to analyze individual investors' decision-making and performance. This paper examines how systematic differences in investors' investment objectives and strategies impact their portfolios and returns. Investors who use fundamental analysis have higher goals and turnover, take more risks, are more confident than investors who use technical analysis, and do better than those who use technical analysis. (Hayat.M.Awan) The research examines how investing behavior affects investment choices. The findings reveal a link between investor behavior and decision-making and that individual engagement and overconfidence affect market sentiment. Technical analysis requires attention. Fundamental analysis is linked to risk-taking and overconfidence.

Vohra, T. (2019). The research found that women's investing experience varies by marital status, education, employment, and monthly income. Women investors, stock and non-stock, have different investing experiences. Despite being less experienced, more women are joining the investing area than in the past, according to the report. Recent advances in the securities sector may explain why more women are investing. The study advises the government and policymakers to establish initiatives to increase women's involvement in India's security market. Women should get enough assistance and practical training from securities market intermediaries so they can navigate the technologically evolved market. Family assistance and education of women would also help enhance women's investing.

Prasad, S., Kiran, R., & Sharma, R. K. (2021). This study found that risk, returns, and market analysis affect investors' choices. This study examines how financial literacy affects retail investors' return, risk, and market analysis decisions. The survey samples regular investors via stock brokerage managers; financial literacy variables are included. Accounting, the market, a broad overview, and technical knowledge comprise financial literacy. Return analytics, risk analytics, and market effects affect investment choices, and risk and return analytics have influenced investment decisions more than market analytics. PLS-SEM was used to examine financial literacy and investment decisions. The findings imply a link between financial knowledge and investing decisions.

Ramakrishnan, H., Jain, R., Mitra, A., Sami, L., Kumar, P., & Krishna, S. H. (2022). This study revealed that investment banks provide financial advice to individuals, companies, and governments. Traditionally connected with corporate finance, a bank may help clients raise cash by underwriting or issuing securities. An investment bank may assist corporations with mergers and acquisitions (M&A) and offer auxiliary services such as market making, derivatives trading, and FICC (fixed income, currency, and commodities) services. Most investment banks have research, prime brokerage, and asset management sections. As an industry, it's divided into three bulk brackets: the retail market, the middle market, and the boutique market (specialized businesses).

### **III. OBJECTIVES OF THE STUDY**

The primary aims of the research are:

1. To examine the socioeconomic profile of the respondents
2. To understand the behavioural factors that influence women commodities investors.
3. To assess the impact of behavioural factors on women investors' decision-making.

### **IV. RESEARCH METHODOLOGY**

The study looked at the behavior of women investors in the commodities market. Individual commodity investors were surveyed. The study targeted intraday and interday commodities traders, and the data was a sample of 151 investors, all women. Respondents were from India Infoline Ltd, Share Khan Ltd, Karvy Securities, Kotak Securities, etc. It has three parts. The first part covers demographics. The second segment has 3 dimensions and 14 factors identifying women investors' trading decisions. The third segment investigates the influence of women investors' behavioural effects on decision-making. Financial brokers and private investors distribute forms to gather the data. Analytical methods include descriptive analysis, factor analysis, and multiple linear regressions.

### **HYPOTHESIS DEVELOPMENT**

Based on the above aims, the following hypothesis is established to explore the impact of each behavioural factor on women investor decision-making.

H1: There is no significant relationship between behavioural factors and technical analysis,

H2: There is no significant relationship between behavioural factors and market psychology.

V. RESULTS AND ANALYSIS

**Table.1**  
**Demographic profile of the respondents**

Demographic Variables	Particular	No. of Respondents	Percentage
Age	18-25	19	13
	26-35	34	23
	36-45	47	31
	46-55	29	19
	Above 56	22	14
Education and Qualification	High School	3	2
	U.G.	59	39
	P.G.	61	40
	Post-P.G.	28	19
Marital Status	Single	72	48
	Married	79	52
Occupation	Self-employed	20	13
	Private	96	64
	Govt	22	14
	Housewife	13	9
Annual Income	Less than Rs2 lakh	22	15
	Rs2-5 lakh	42	28
	Rs5-10 lakh	46	30
	Above Rs10 lakh	41	27
	<b>Total</b>	<b>151</b>	<b>100</b>

\*\*\* Source: Primary data

Table 4.1 indicates that the majority (31%) of commodity women investors are between the ages of 36 and 45. 52% of respondents are married, and most (40%) possess a postgraduate degree. 30% of respondents earn between Rs5 lakh and Rs10 lakh each year. A private company employs 64% of respondents.

5.1 FACTORS INFLUENCING WOMEN INVESTOR DECISION MAKING

**Table. 2**  
**Reliability analysis of Women investor Decision Making**

Cronbach's Alpha	N of Items
0.724	14

\*\*\* Source: Primary data

In the present survey, table 4.4 reveals that the Cronbach alpha value for Women investor decision-making is 0.724, which verifies the homogeneity of their constituent items and suggests an adequate degree of reliability.

**Table. 3**  
**KMO & Bartlett Test of Sphericity on Women investor Decision Making**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.588
Bartlett's Test of Sphericity	Approx. Chi-Square	742.427
	Df	91
	Sig.	.000

\*\*\* Source: Primary data

These tables show the KMO and Bartlett Test of Sphericity for Women investor Decision Making. KMO of Behavioural Bias with a value of 0.588 indicates adequate sampling for the research. The significant result for the Bartlett Test of Sphericity .000 indicates that meaningful relationships exist between variables. The objective of factor analysis is to minimize the number of variables impacting women investor decision-making

to a manageable number. On a five-point scale, responses on Technical analysis, Fundamental analysis, and Market Psychology are received and subjected to factor analysis. The outcomes are presented below.

**Table. 4:**  
**Factor Analysis of Women investor Decision Making**

Dimensions	Factor Loading
<b>Technical Analysis</b>	
I use past price movements to predict future price	0.802
I do active trading volume/turnover	0.782
I use charts, patterns and trends	0.627
I watch daily price fluctuation	0.519
<b>Market Psychology</b>	
I follow the recommendations of my professional women investor/broker	0.752
Following the news stories in the media	0.702
Based on rumours in the market	0.689
I go along with the recommendations of my friends/family	0.665

\*\*\* Source: Primary data

The following table classifies the decision-making of women investors into three dimensions and fourteen factors. It consists of technical, fundamental, and market psychology with factor weightings. Technical analysis with four variables comprises women investors who use previous price movements to anticipate future prices (0.802), women investors who engage in active trading volume/turnover (0.782), women investors who utilize charts, patterns, and trends (0.627), and women investors who monitor daily price fluctuations (0.802). (0.519). Women investors follow the suggestions of expert women investors/brokers (0.752), fresh news in the media (0.702), market rumours (0.689), and my friends' recommendations (0.689) according to Market Psychology with four factors (0.665).

## 5.2. INFLUENCE OF BEHAVIOURAL FACTORS ON WOMEN INVESTOR'S DECISION MAKING

Regression analysis aims to estimate the connection between a dependent variable and one or more independent variables. Regression analysis is done in the research to determine the effect of behavioural elements on the decision-making of women investors. The decision-making process is subdivided into three more categories: technical, fundamental, and market psychology. For this reason, the following hypothesis is constructed:

H1: The effect of behavioural factors on women investors' decisions based on Technical Analysis is insignificant.

The outcome of applying regression analysis to the hypothesis mentioned above is shown below.

**Table.5**  
**Regression Analysis showing the influence of behavioural factors on Technical Analysis.**

Model	R	R Square	Adjusted R Square	Std Error of Estimate
	0.809	0.654	0.587	1.36058

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-4.619	2.018		-2.289	0.027
Allusion	0.008	0.086	0.011	0.095	0.925
Regretful	0.113	0.194	0.073	0.584	0.562

Reluctant	0.225	0.130	0.227	1.725	0.092
Belief	0.217	0.061	0.410	3.547	0.001
Self Reliance	0.096	0.072	0.156	1.337	0.188
Risk Aversion	-0.104	0.113	-0.132	-0.923	0.361
Rational Choice	0.287	0.124	0.302	2.316	0.026
Constructive	0.151	0.108	0.165	1.396	0.170

\*\*\* *Source: Primary data*

The above tables show the regression model that finds eight major variables of women's investor behavior most closely connected and affect investing decisions based on technical analysis. As the p values for belief and rational choice are smaller than the alpha value, the model indicates that they are strongly connected with investment decision-making (0.05). The null hypothesis cannot be accepted. Allusion (0.925), Regretful (0.562), Reluctant (0.092), Self-reliance (0.188), Risk aversion (0.361), and Constructive (0.170) have P values that are not statistically significant. The R square and adjusted R square values indicate that women's investor behavior influenced the technical analysis-based investing decision-making process by 58 to 65%.

H2: The effect of behavioural factors on women investors' decisions based on Market Psychology is insignificant

**Table. 6**  
**Regression analysis showing the influence of behavioural factors on Market psychology**

Model	R	R Square	Adjusted R Square	Std. The error in theEstimate
	0.734	0.539	0.449	1.68696

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-2.089	2.502		-0.835	0.409
Allusion	-0.159	0.107	-0.203	-1.480	0.147
Regretful	0.298	0.240	0.178	1.238	0.223
Reluctant	0.178	0.161	0.167	1.101	0.277
Belief	0.036	0.076	0.063	0.473	0.639
Self Reliance	0.307	0.089	0.467	3.459	0.001
Risk Aversion	-0.070	0.140	-0.082	-0.501	0.619
Rational Choice	0.225	0.154	0.220	1.465	0.151
Constructive	0.153	0.134	0.156	1.142	0.260

\*\*\* *Source: Primary data*

The regression model in Table 4.7 above indicates eight main variables of women investor behavior that are most closely connected and influence investing decisions based on market psychology. The model demonstrated that self-reliance is substantially connected with investment decision-making since the p-value is smaller than the alpha value (0.05). The null hypothesis is ruled out. Allusion (0.147), Regretful (0.223), Reluctant (0.277), Belief (0.639), Risk Aversion (0.619), Rational Decision (0.151), and Constructive (0.260) are not statistically significant behavioral characteristics. According to Market Psychology, the values of R square and modified R square indicate that women's investor behavior has a 44 to 53 percent effect on investment decision-making.

## VI. CONCLUSIONS

This study's findings reflect the impact of psychological and sociological variables on women investors' choices. The results demonstrate that technical analysis is significantly related to independent factors like belief and rational choice. While women investors like to look on the bright side of things, they know that a drop in the market might cause their projections for the future to be erroneous. They mainly relied on their gut

while making financial decisions. Although the market is favourable, many women investors choose to wait before selling their investments. Women investors are more likely to follow the recommendations of large, well-known companies requests than those of smaller, less visible organizations. They make their own investment decisions using chart patterns and daily price movements and exercise extreme caution whenever they undertake any trading. To back up their choices and make educated guesses, they look at how current commodity prices compare to the highs and lows of recent history. Women investors tend to listen to the advice of market experts and invest in the stocks they know the most about. These are vital signs that self-reliance and market psychology are linked.

## VII. SUGGESTIONS

The findings of this research indicate that economic and social conditions have a crucial role in determining who makes investments and how much. These are supported by the belief that financial statements have a bearing on the decisions made by women investors. The study concludes that women investors' decision-making is affected by behavioural aspects and suggests doing more research using a large sample of women investors.

## REFERENCES

- [1]. Amos Tversky, D. K. (2002). The Framing of Decisions and the Psychology of choice. JSTOR.
- [2]. Bondt, W. F. (1998). A portrait of the individual investor. *European Economic Review*, 42, 831-844.
- [3]. Carmen Lee, R. K. (2008). How Adaptation to Losses affects Future selling decisions. Association for Consumer Research Annual North American Conference. San Francisco.
- [4]. Chin, A. L. (2012). Psychological Biases and Investor Behavior: Survey Evidence from Malaysian Stock Market. *International Journal on Social Science Economics and Art*, 2 (2).
- [5]. Chun, D. L. (2007). Investor Behavior and Decision-making Style: A Malaysian Perspective. IBM.
- [6]. Dennis Dittrich, W. G. (2001). Overconfidence in Investment Decisions - An Experimental approach.
- [7]. Dr M.Selvam, E. E. (2011). Investors' Attitude on Stock selection decision. *International Journal of Management And Business Studies*, 1 (2).
- [8]. Ebenezer Bennet, G. I. (2011). Factors influencing Retail Investors' Attitude towards Investing in Equity stocks: A study in Tamil Nadu. *Journal of modern accounting and auditing*, 7 (3), 316-321.
- [9]. Gaurav Kabra, P. K. (2010). Factors influencing Investment decision of Generations in India. *Asian Journal of Management Research*.
- [10]. Inga Chira, M. A. (2008). Behavioural bias Within the Decision-Making process. *Journal of Business and Economic Research*, 6 (8).
- [11]. Kahneman, A. T. (1974). Judgment under uncertainty: Heuristics and Biases. JSTOR, 185 (4157), 1124-1131.
- [12]. Kumar, A. C. Determinants of Individual investor Behavior: An Orthogonal Linear Transformation Approach.
- [13]. Lubna Riaz, A. I.-A. (2012). Impact of Psychological factors on Investment decision making mediating by risk perception: A conceptual study. *Middle-East Journal of Scientific Research*, 12 (6).
- [14]. Luong, D. T. (2011). Behavioural factors influencing individual investors decision making and performance - A Ho Chi Minh Stock Exchange survey.
- [15]. Prasad, S., Kiran, R., & Sharma, R. K. (2021). Influence of financial literacy on retail investors' decisions in relation to returning, risk and market analysis. *International Journal of Finance & Economics*, 26(2), 2548-2559.
- [16]. R.Ritter, J. (2003). Behavioural Finance. *Pacific-Basin Finance Journal*, 11 (4), 429-437.
- [17]. Ramakrishnan, H., Jain, R., Mitra, A., Sami, L., Kumar, P., & Krishna, S. H. (2022). PERCEPTION OF INVESTMENT DECISION MAKING AMONG ASPIRING TRADING INVESTORS. , 49(06).
- [18]. Salman Ali Quershi, K. u. (2012). Factors affecting Investment Decision making of Equity fund managers. *Wulfenia Journal*, Austria, 19 (10).
- [19]. Schubler, T. N. (2012). Investment decisions and Socio-demographic characteristics - Empirical evidence from Germany. *International Journal of Economics and Finance*, 4 (9).
- [20]. Shafi, D. M. (2014). Determining influencing individual investor behavior in the stock market: A cross country research survey. *Arabian Journal of Business and Management Review*, 2 (1).
- [21]. Shyan-Rong Chou, G.-L. H.-L. (2010). Investor Attitudes and Behavior towards Inherent Risk and Potential Returns in Financial Products. *International Research Journal of Finance and Economics*, 44.
- [22]. Suresh. A.S. (2013). A study on Fundamental and Technical analysis. *International Journal of Marketing, Financial Services and Management Research*, 2 (5).
- [23]. Vohra, T. (2019). Does Experience Matter: A Study of Investments Made by Women Investors of Punjab. *IPE Journal of Management*, 9(2), 1-12.
- [24]. [www.fmc.gov.in](http://www.fmc.gov.in)